

West Herts Diabetes Renal Pathway

All patients with DM screened at primary care annually
U+Es , eGFR, microalbuminuria – see table 1

Exclude UTI

- Exclude Overt Proteinuria
Autoimmune screen ANA ANCA - if positive → **Renal**
- Exclude Myeloma (Protein Electrophoresis)
Bence Jones proteins in urine - if positive → **Haematology**

- Tighten Diabetes Control
- BP 130/80 mmHg (140/90 if prone to falls, orthostatic hypotension) Preferably with ACE inh or ARBs
- Lipid Management (follow NICE guidelines)
- Smoking cessation

Check U+E's 2 weeks after starting ACE or ARB (Expected decline in eGFR up to 25% and rise in K up to 5.9)

If > than that, query renal artery stenosis → **Renal**

- US KUB
- If obstructed → **Urology**
- If renal asymmetry? Renal Artery Stenosis → **Renal for Renal Artery Angiogram**
- If Haematuria and UTI excluded and autoimmune screen negative → **Urology**

Monitor eGFR as guidelines (see table 1)

Plot eGFR on ICE

if falling with increased steepness ie >5 ml/min/yr (advise fasting sample and good hydration before test)

- US KUB
- Autoimmune screen, if positive → **Renal**
- Myeloma Screen, if positive → **Renal + Haematology**

Monitoring renal function and screening for complications

If eGFR < 45ml/min when patient not acutely unwell

1. Screen for Anaemia (FBC) 6/12

Exclude other causes

B12, Folate, Ferritin and Iron Studies

If TSAT <30% and Ferritin <50, will need iron replacement. Trial Oral if no improvement

Renal for IV +/- EPO



2. Check Bone Profile Vit D and PTH

If Phosphate High → **Renal (dietician and phosphate binders)**

If Vit D deficient, treat with Vit D alone and no calcium supplements, doses per Vit D guidelines

If PTH raised but normal phosphate + Vit D, check 6/12

If rapid Rise > 3x upper limit of normal → **Renal for 1-Alfa**

Does Patient have significant retinopathy? If not, non-diabetic nephropathy to be considered.

Diabetes Renal Pathway When & Where to refer

REFERAL EXCLUSIONS:

- NH Residents
- Age >75
- Active cancer treatment (*if treatment includes steroids might still need DSN to help diabetes control)

Indications to refer to Diabetes Clinic

- Poor diabetes control (hypos or inappropriately high HbA1C) despite maximal oral management (list medication tried and results)
- Deterioration of diabetes control after metformin discontinuation in patients with eGFR below 30 ml/min
- Patients with DM treated medically on renal replacement therapy
- Patients with DM who had kidney/ pancreas transplant

Indications for referral to Renal Clinic

- Linear decline in renal function increasing steepness (eGFR graph on ICE)
- K > 5.9 mmol/L on 2 consecutive samples
- Phosphate > 2.0 mmol/L on 2 consecutive samples
- Anaemia of chronic disease Hb < 110, requiring IV iron and/or EPO
- Suspicion of RAS
- eGFR ≤ 30 mL/min consistently and falling

Diabetes and renal team will discuss investigations and F/U in MDT (not commissioned at present)

Diabetes team will review dialysis patients with diabetes a month after starting on dialysis

Pts may be discharged from the clinic with instruction for further follow up in primary care

		ACR categories (mg/mmol), description and range		
		A1 <3 Normal to mildly increased	A2 3–30 Moderately increased	A3 >30 Severely increased
GFR categories (ml/min/1.73 m ²), description and range	G1 ≥90 Normal and high	≤1	1	≥1
	G2 60–89 Mild reduction related to normal range for a young adult	≤1	1	≥1
	G3a 45–59 Mild–moderate reduction	1	1	2
	G3b 30–44 Moderate–severe reduction	≤2	2	≥2
	G4 15–29 Severe reduction	2	2	3
	G5 <15 Kidney failure	4	≥4	≥4

↓
Increasing risk

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Increasing risk

Abbreviations: GFR, glomerular filtration rate, ACR, albumin creatinine ratio

NB: ACR is an important indicator of cardiovascular risk and progression.

Adapted with permission from Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group (2013) KDIGO 2012 clinical practice guideline for the evaluation and management of chronic kidney disease. *Kidney International* (Suppl. 3): 1–150